

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended): A dynamically reconfigurable intrusion-tolerant network interposed between a [[service requesting]] service-requesting client and plural protected servers to minimize the impact of an intrusive event on the protected servers ~~by providing plural responses to an incoming network service request, the plural responses generated at at least one of the protected servers in response to the incoming network service request and providing redundancy for the intrusion tolerant network,~~ comprising:

a proxy server configured to receive ~~the~~ an incoming network service request from the client and to forward said request pursuant to a tolerance protocol to the plural protected servers;

a network link for communication of the incoming network service requests from the proxy server to respective ones of the plural protected servers;

~~an~~ at least two acceptance monitors configured to receive from the protected servers ~~one or more of the plural~~ respective responses and to apply ~~one or more~~ respective acceptance tests thereto, the respective responses generated at the protected servers in response to the incoming network service request and providing redundancy for the intrusion tolerant network;

and

a ballot monitor configured to receive from the acceptance monitors respective results of the applied acceptance tests and to determine a preferred response based on the respective results of the acceptance monitors ~~said plural responses~~ to forward to the proxy server for transmission to the [[service requesting]] service-requesting client.

2 (Currently Amended): A dynamically reconfigurable intrusion-tolerant network interposed between a service requesting client and plural protected servers to minimize the

impact of an intrusive event on the protected servers ~~by providing plural responses to an incoming network service request, the plural responses generated at at least one of the protected servers in response to the incoming network service request and providing redundancy for the intrusion tolerant network,~~ comprising:

a proxy server configured to receive incoming network service requests from the client and to forward said requests pursuant to a tolerance protocol to the protected servers;

a network link connecting the proxy server to the protected servers and configured to forward the incoming network service requests to the protected servers;

~~an~~ at least two acceptance monitors configured to receive from the protected servers ~~one or more of the plural~~ respective responses and to apply ~~one or more~~ respective acceptance tests thereto, the respective responses generated at the protected servers in response to the incoming network service request and providing redundancy for the intrusion tolerant network; and

a ballot monitor configured to receive from the acceptance monitors respective results of the applied acceptance tests and to determine a preferred response based on the respective results of the acceptance monitors ~~said plural responses~~ to forward to the proxy server for transmission to the ~~[[service requesting]]~~ service-requesting client;

an intrusion sensor responsive to anomalies in operation of the network and configured to detect threats to the network; and

an adaptive reconfigurer configured to alter the tolerance protocol and to reconfigure a network forwarding scheme among the proxy servers, the acceptance monitors, and the ballot monitor in response to a predetermined condition.

3 (Currently Amended): A network according to Claim 1, wherein said proxy server further is configured to forward said incoming network service request to ~~an~~ at least one of the

acceptance monitors and a the ballot monitor.

4 (Currently Amended): A network according to Claim 1, wherein said proxy server comprises multiple ~~independent~~ proxy servers.

5 (Cancelled).

6 (Currently Amended): A network according to Claim 1, wherein said ballot monitor comprises multiple ~~independent~~ ballot monitors.

7 (Previously Presented): A network according to Claim 2, wherein said intrusion sensor comprises a multiplicity of sensors configured to monitor predetermined operations of the network.

8 (Currently Amended): A network according to Claim 2, wherein said adaptive reconfigurer is configured to reconfigure the network forwarding scheme to establish parallel forwarding among the protected servers, the acceptance monitors, and the ballot monitor.

9 (Currently Amended): A network according to Claim 1, wherein said proxy server is configured to forward said incoming network service request to ~~the~~ at least one of the protected servers, the acceptance monitors, and the ballot monitor.

10 (Previously Presented): A network according to Claim 1, wherein said acceptance monitor is configured to apply one or more acceptance tests taken from the group of satisfaction of requirements test, accounting test, reasonableness test, or computer run time

test.

11 (Previously Presented): A network according to Claim 1, wherein said ballot monitor is configured to determine the preferred response using a process taken from the group of simple majority voting, Byzantine agreement process, or adjudication process.

12-14 (Cancelled).

15 (Currently Amended): A network according to Claim 2, wherein at least one of the proxy servers, the acceptance monitors, the ballot monitor, the intrusion sensor, and the adaptive reconfigurer comprises a separate ~~and independent~~ processor.

16 (Currently Amended): A network according to Claim 2, wherein two or more of the proxy servers, the acceptance monitors, the ballot monitor, the intrusion sensor, and the adaptive reconfigurer are configured to operate on a single processor.

17 (Currently Amended): A network according to Claim 2, wherein the adaptive reconfigurer is configured to reconfigure the network forwarding scheme to establish multiple ~~independent~~ network forwarding paths.

18 (Currently Amended): A method for reconfiguring communication among network components to minimize the impact of an intrusive event on plural protected servers ~~by providing plural responses to an incoming network service request, the plural responses generated at at least one of the plural servers in response to an incoming network service request from a service requesting client in order to provide redundancy,~~ comprising:

receiving ~~the~~ an incoming network service request from a service requesting client and forwarding the request pursuant to a tolerance protocol to respective ones of plural protected servers;

generating ~~the plural~~ respective responses to the incoming network service request and forwarding the ~~plural~~ respective responses, the respective responses generated in response to the incoming network service request in order to provide redundancy;

applying at least two acceptance monitors respective ~~one or more~~ acceptance tests to the ~~plural~~ respective responses and forwarding respective acceptance test results;

~~polling~~ analyzing the acceptance test results to determine a preferred response based on the respective acceptance test results of the plural responses based upon the poll; and

forwarding the preferred response to the service requesting client.

19 (Currently Amended): A method for dynamically reconfiguring communication among network components pursuant to multiple tolerance protocols to minimize the impact of an intrusive event on plural protected servers ~~by providing plural responses to an incoming network service request, the plural responses generated at at least one of the protected servers in response to an incoming network service request from a service requesting client in order to provide redundancy~~, comprising:

receiving ~~the~~ an incoming network service request from a service requesting client and forwarding the request pursuant to a tolerance protocol to respective ones of plural protected servers;

generating ~~the plural~~ respective responses to the incoming network service request and forwarding the ~~plural~~ respective responses, the respective responses generated in response to the incoming network service request in order to provide redundancy;

applying at least two acceptance monitors respective ~~one or more~~ acceptance tests to the ~~plural~~ respective responses and forwarding respective acceptance test results;

~~polling~~ analyzing the acceptance test results to determine a preferred response based on the respective acceptance test results; ~~of the plural responses based upon the poll;~~ and

forwarding the preferred response to the service requesting client;

detecting any anomalies in operation of the network; and

revising the tolerance protocol and a network forwarding scheme in response to an anomaly in operation of the network.

20 (Previously Presented): A method according to Claim 18, wherein the receiving the incoming network service request further comprises:

receiving the incoming network service request at a proxy server.

21-22 (Cancelled).

23 (Currently Amended): A method according to Claim 18, wherein the receiving the incoming network service request further comprises:

forwarding the incoming network service request on multiple ~~independent~~ paths.

24 (Currently Amended): A method according to Claim 18, wherein the generating the ~~plural~~ respective responses comprises:

generating the ~~plural~~ respective responses at any of the protected servers.

25-26 (Cancelled).

27 (Currently Amended): A method according to Claim 18, wherein the forwarding the ~~plural~~ respective responses comprises:

forwarding the ~~plural~~ respective responses on multiple ~~independent~~ paths.

28-29 (Canceled).

30 (Currently Amended): A method according to Claim 18, wherein the forwarding the respective acceptance test results comprises:

forwarding the respective acceptance test results from the acceptance monitors to a ballot monitor.

31 (Currently Amended): A method according to Claim 18, wherein the forwarding the respective acceptance test results comprises:

forwarding the respective acceptance tests results from the acceptance monitors to multiple ballot monitors.

32 (Currently Amended): A method according to Claim 18, wherein the forwarding the respective acceptance test results comprises:

forwarding the respective acceptance tests results from the acceptance monitors on multiple ~~independent~~ paths.

33 (Currently Amended): A method according to Claim 18, wherein the ~~polling~~ analyzing the acceptance test results comprises:

polling the respective acceptance test results at a ballot monitor.

34 (Currently Amended): A method according to Claim 18, wherein the ~~polling~~ analyzing the acceptance test results comprises:

applying multiple polling routines.

35 (Currently Amended): A method according to Claim 18, wherein the ~~polling~~ analyzing the acceptance test results comprises:

applying multiple polling routines to ~~the~~ responses from each of a multiplicity of ballot monitors.

36 (Currently Amended): A method according to Claim 18, wherein at least one of receiving an incoming network service request, generating the ~~plural~~ respective responses, applying ~~one or more~~ respective acceptance tests, ~~polling~~ analyzing the acceptance test results, and forwarding the preferred response comprises:

utilizing a separate processor to enhance independence of operation and minimize the impact of the intrusive event.

37 (Currently Amended): A method according to Claim 19, wherein the revising the tolerance protocol and network forwarding scheme further comprises:

forwarding the ~~plural~~ respective responses on multiple ~~independent~~ paths.

38 (Currently Amended): A method according to Claim 19, wherein the revising the tolerance protocol and network forwarding scheme comprises:

forwarding the ~~plural~~ respective responses to multiple ~~independent~~ of the acceptance monitors.

39 (Currently Amended): A method according to Claim 19, wherein the revising the tolerance protocol and network forwarding scheme comprises:

forwarding ~~results of the~~ applied acceptance test results to multiple ~~independent~~ ballot monitors.

40 (Currently Amended): A method according to Claim 19, wherein the revising the tolerance protocol and network forwarding scheme comprises:

forwarding the preferred response to multiple ~~independent~~ proxy servers.

41 (Previously Presented): A method according to Claim 19, wherein the revising the tolerance protocol and network forwarding scheme further comprises:

comparing any detected anomalies with known anomalies to identify a predetermined intrusion tolerance protocol.

42 (Currently Amended): A method according to Claim 19, wherein the revising the tolerance protocol and network forwarding scheme comprises:

determining ~~an~~ which of the acceptance monitors ~~that~~ will be used to support a selected tolerance protocol.

43 (Previously Presented): A method according to Claim 19, wherein the revising the tolerance protocol and network forwarding scheme comprises:

determining a ballot monitor that will be used to support ~~the~~ a selected tolerance protocol.

44 (Previously Presented): A method according to Claim 19, wherein the revising the tolerance protocol and network forwarding scheme comprises:

determining a proxy server that will be used to implement a selected tolerance protocol.

45 (Previously Presented): A method according to Claim 19, wherein the revising the tolerance protocol and network forwarding scheme comprises:

prioritizing multiple incoming network service requests.